

20/53 JAPIO (1/34) - (C) JPO

PN - JP 11326668 A 19991126 [JP11326668]

TI - LIGHT LOSS ** LTER*** AND ITS MANUFACTURE

IN - HARUMOTO MICHIO; MOBARA MASAICHI

PA - SUMITOMO ELECTRIC IND LTD

AP - JP13554398 19980518 [1998JP-0135543]

IC1 - G02B-006/16

IC2 - G02B-006/122

AB - PROBLEM TO BE SOLVED: To provide a light loss ***filter***, which is capable of eliminating the wavelength dependence of gain by applying it to a ***fiber*** amplifier and is easily manufactured, and its manufacture.

- SOLUTION: This light loss ***filter*** has a 1st long-cycle grating LPG-a, which has a ***refractive*** index variation cycle as a 1st cycle and a maximum value of attenuation due to the coupling of a ***core*** mode with a ***cladding*** mode as 1st wavelength and a 2nd long-cycle grating LPG-c, which has a ***refractive*** index variation cycle as a 2nd cycle and a maximum value of attenuation due to the coupling of a ***core*** mode with a ***cladding*** mode as 2nd wavelength along the ***core*** axis of an optical waveguide 10. The degrees of the ***cladding*** modes coupled with the ***core*** modes of the 1st long-cycle grating LPG-a and 2nd long-cycle grating LPG-c are made different by the long-cycle gratings as to the 1st and 2nd wavelengths.

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21/53 JAPIO (2/34) - (C) JPO

PN - JP 11183736 A 19990709 [JP11183736]

TI - OPTICAL ***FIBER***, OPTICAL ATTENUATOR USING SAME AND OPTICAL ***FILTER***

IN - MORISHITA YUICHI; ARIGA YUMI; MUTA KENICHI; SAIJO MASASHI; SUGI KAZUNARI; TAKEUCHI YOSHIKI; NAGASE AKIRA; SUMITA MAKOTO; MITACHI NARIYUKI

PA - SHOWA ELECTRIC WIRE & CABLE CO LTD; NIPPON TELEGR & TELEPH CORP <NTT>

AP - JP35704297 19971225 [1997JP-0357042]

IC1 - G02B-006/00

AB - PROBLEM TO BE SOLVED: To decrease the influence of a ***cladding*** mode caused at the time of connection and to provide an optical ***fiber*** having an excellent characteristic by containing a dopant having a low ***refractive*** index in a ***cladding*** layer for decreasing the ***refractive*** index.

- SOLUTION: An optical ***fiber*** 4 is formed by a ***core*** 1 propagating light and a ***cladding*** composed of an inner ***cladding*** layer 2 and an outer ***cladding*** layer 3 in this order around the ***core***. The ***core*** 1 contains attenuation dopant Co(sup 2), Ge. F is added to the inner ***cladding*** layer 2 for decreasing the ***refractive*** index. P and Co(sup 2) are added to the outer ***cladding*** layer 3 for confining/ dissipating the ***cladding*** mode. Consequently, an optical ***fiber*** having no problem in the manufacturing process of the optical ***fiber*** and being hardly affected by the influence of a ***cladding*** mode is provided. When this optical ***fiber*** is used, an attenuation material of high density can be contained in a part confining the ***cladding*** mode and also the ***cladding*** mode is effectively confined.

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22/53 JAPIO (3/34) - (C) JPO

PN - JP 11002727 A 19990106 [JP11002727]

TI - OPTICAL ***FIBER*** ***FILTER*** AND OPTICAL ***FIBER*** AMPLIFIER

IN - MORI TSUNEO; ABE ATSUSHI; FUJIMAKI YUKIO; SHIROTA MASAOKI; KAMIYA KAZUO

PA - SHIN ETSU CHEM CO LTD

AP - JP15373697 19970611 [1997JP-0153736]

IC1 - G02B-006/00

IC2 - G02B-006/293 H01S-003/07 H01S-003/10